

NEW BAMBOOS, AND SOME NEW RECORDS, FROM FRENCH INDO-CHINA¹

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Six species are described as new; one earlier description emended. Four of the new species are from a lot of 17 numbers of bamboos (comprising 12 species in six genera) included in a general collection made under the joint auspices of Lingnan University and the Arnold Arboretum by W. T. Tsang between May and October, 1940. The bamboos in this collection were all gathered in the vicinity of Sai Wong Mo Shan, Hoi Ning Province, east-central Tonkin.

The types of the new species from Tsang's collections are to be deposited in the herbarium of the Arnold Arboretum, and duplicates in the herbarium of Lingnan University.

Indosasa angustata sp. nov.

Species omnium generis mihi cognitarum proxima *I. gibbosae* (McClure) McClure,³ sed culmorum vaginis versus apicem angustissimum attenuato-angustatis, marginibus sursum rectis vel concavis (haud convexis), dorso inter nervos aciculis a latere patentibus subpersistentibus obsitis, culmorum ramorumque nodis minus inflatis procul recedens.

Culmi fere 8 m. alti et 4.2 cm. diametro (teste Tsang), erecti, omnino glabri; *internodia* anguste fistulosa, levis vix nervosa, primo tenuiter cerata deinde porriginosa, postremo munda; *nodi* cicatrice prominuli, supra cicatricem in supercilium latum modice inflati. *Culmorum vaginae* valde elevato-nervosae, crassiusculae chartaceaeque mox dissolutae, sursum longe attenuato-angustatae, marginibus sursum rectae vel concaviusculae (haud convexae), apice angustissimae, dorso inter nervos aciculis a latere patulis, hyalinis, brunneatis, subpersistentibus, obsitae, marginibus ciliis brunneatis fimbriatae; *auriculae* fere haud evolutae; *setae orales* utrinque vulgo 2-4, 3-4 mm. longae, rigidae, scabrae vel hispidae, basi crassae, sursum attenuatae; *ligula* usque ad 5 mm. alta (vagina quinta) et ultra, dorso dense hispida, apice convexa, margine integro ciliata; *lamina* erecta, rigidula, subpersistens, anguste triangula, in apicem angustum subulate acutum attenuata, marginibus involuta, utrinque glabra vel supra, basin versus, hispidula. *Rami* vulgo 2, interdum 3 vel 1, semipatentes, valde inaequales vel subaequales, tenues, rigidi, usque ad 35 cm. longi (in specimine), omnino glabri; *ramuli* solitarii vel raro gemini, vaginellis basalibus gemmiparis, aphyllis, persistentibus, elevato-nervosis, plerisque primo plus minusve dense hispidulis vel substrigosis, sensim glabrescentibus. *Foliorum vaginae*

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³***Indosasa gibbosa*** (McClure) comb. nov.

Sinobambusa gibbosa McClure, Lingnan Univ. Sci. Bull. **9**: 58. 1940.

4–10, infimis laxe, superioribus arcte amplectantibus, elevato-nervosae, dorso primo setis patulis deciduis et basi bulbosis, sparse obsitae, demum papillosae; *auriculae* nullae vel debiles, glabrae; *setae orales* nullae vel paucae, tenues subtiliter scabrae; *ligula* circa 1 mm. longa, basi crassa, dorso hispidula, apice convexiuscula, margine integro glabra; *petiolus* 5–10 mm. longus, utrinsecus glaber; *foliorum laminae* usque ad 21.5 cm. longae et usque ad 3.4 cm. latae, lanceolatae vel oblongo-lanceolatae vel sublineari-lanceolatae, pleraeque apice basique attenuatae, interdum infima basi rotundata, apice scabro-subulatae, supra glabrae, subtus dense hispidulae, utrinque subconcoloratae, marginibus cartilaginae; *venulae transversae* utrinque conspicuae. *Inflorescentiae* desideratae.

TYPE: *W. T. Tsang 30050*, collected June 18, 1940, near Lung Waan. "Wild; occasional on dry clay soil in forest; culms 20 Chi. ft. (7.5 m.) tall." Chinese name (Cantonese): *Foo Chuk*, i.e., Bitter Bamboo.

It is with some hesitation that I place this species here. It is not closely allied to any of the known species of *Indosasa*, and it shows some affinity toward some of Gamble's narrow-sheathed species of *Arundinaria*, but the latter are not all true *Arundinarias*, and their generic affiliation remains to be determined.

***Indosasa solearis* sp. nov.**

Species proxima *I. crassiflorae* McClure, sed pseudospiculis multo angustioribus, lemmatibus textura tenuioribus et nervis prominentioribus, palea apice resecta ita soleaeforme sat distincta.

Culmi 2–3 m. alti (teste Petelot), glabri (pars superior tantum 73 cm. longa adest); *internodia* fistulosa (in specimine retorrída et profunde striata); *nodi* cicatrice et supra cicatricem in supercilium angustum sulcatum valde prominentes. *Culmorum vaginac* desideratae. *Rami* (floriferi tantum adsunt) solitarii vel basi semel iterumve divisi, semipatentes, glabri; *nodi* basi vaginellis deciduis instructi. *Foliorum vaginac* laminaeque desideratae. *Inflorescentiae* pseudospiculae ad nodos ramorum aphyllorum quasi spicate dispositae. *Pseudospiculae* usque ad 8 cm. longae, subfusiformes, deorsum longe angustatae, apice hebetè acutae, primo solitariae, nonnullis demum basi divisis ita binis vel etiam ternis venientibus. *Rhachis* pseudospicularum 10–15 mm. longa, glabra, internodiis 1–2 mm. longis, nodis haud inflatis, omnibus gemmiferis. *Prophyllum* membranaceum, circa 5 mm. longum, carinis longe ciliatum, alioquin glabrum. *Bracteae gemmiparae* circa 9, persistentes, tenuiter chartaceae, nervosae, glabrae, I: 3–4 mm. longa, ovata, obtusa, subapiculata, dorso carinata, sequentibus gradatim nervosioribus longioribusque (quarum V^a vel VI^a longissima est) usque ad 14–16 mm. longis, apice sublamiferis (infra apicem constrictis), superioribus circa 3 gradatim brevioribus, suprema 9–12 mm. longa, apice apiculata. *Spiculae* 5–13-florae. *Flosculae* omnes perfectae, infimis 1–2 interdum supremis 1–3 semper tabescentibus. *Gluma vacua* 1–0, formae lemmateos sed brevior. *Rhachillae segmenta* crassa, intus medullosa, in sicco cava, curvata, latere concavo sulculo mediano notata, omnino nitida, latere convexo versus apicem ciliolatum scabra, alioquin glabra. *Lemma* amplum, subventricosum, circa 12 mm. longum, obtusum vel subacutum, apiculatum, extus glabrum et nervis valde prominentibus nervosissimum, nervis sursum obscure tessellatis, intus apicem versus scabrum et nervis conspicue tessellatis notatum, marginibus glabrum. *Palea* lemmate multo brevior angustiorque, tenuiter char-

tacea, debiliter carinata, *apice obtuso subcomoso revecta ita soleaeformis*, secus carinas prope tantum apicem sparse ciliolata, extus alioquin glabra vel secus margines interdum scabriuscula. *Lodiculae* amplae, nervosissimae, subaequales, lanceolatae vel oblongo-lanceolatae, apice subite acuminata vel subacuta, utrinque glabrae, marginibus ciliatae, duobus anterioribus dimidio infimo uno latere valde incrassatis brunneatisque, alioquin omnino hyalinae. *Antherae* circa 5 mm. longae, lineares, apice emarginatae. *Ovarium* angustum, glabrum, apice attenuatum. *Stylus* brevis, glaber. *Stigmata* 3 approximata, subnuda, interdum quasi ala hyalina instructa. *Fructus* maturus non inventus.

TYPE in U. S. National Herbarium, no. 1610012, collected in December 1930, by *Petelot* (no. 4287), "bamboo 2-3 m. high, forming thickets (*broussailes*) at an altitude of about 1000 m. on the Vam Dao massif, Tonkin."

The specific name (Latin, sandal-shaped) alludes to the peculiar shape of the palea, which results from the folding forward of the apex to form a shallow pocket like the toe of a lounging slipper. This feature distinguishes the species at once from all the others known to me.

Bambusa aurinuda McClure, Lingnan Univ. Sci. Bull. no. 9: 3. 1940.

When this species was set up, *W. T. Tsang 29447*, consisting of sterile material but including good culm sheaths, by which the plant may be identified without difficulty in the field, was chosen as the type. *W. T. Tsang 28988*, with leaves and flowers but no culm sheaths, was taken, on the basis of a careful comparison of the few vegetative characters available, to be the same. On the strength of this conclusion, *W. T. Tsang 28988* was used as the basis of a description of the flowers, and was designated as a hypotype of the species. The present collection under *W. T. Tsang 30198*, however, contains both flowers and good culm sheaths, presumably from the same plant, and the flowers prove to be different from those of *W. T. Tsang 28988* originally taken to be the same species and designated as a hypotype. In the light of this new material, it seems best to exclude *W. T. Tsang 28988* from the concept of the species, and to prepare a new description on the basis of the more complete material, including flowers reasonably presumed to be associated with the sheaths, which are like those in the type. It will be seen that the vegetative structures, including the culm sheaths, in the new material agree in all particulars with the type, and with the original description of the type.

Culmi erecti vel suberecti, usque et ultra 11 m. alti (teste Tsang), omnino glabri; *internodia* teretia, fistulosa, inania; *nodi* cicatrice crasso elevati, supra cicatricem vix vel paullo inflati. *Culmorum vaginac* deciduae, in sicco papyraceo-coriaceae vel coriaceae, omnino, praecipue margines versus, valde elevato-nervosae, dorso marginibusque glabrae; *auriculae* validae, inaequales, obovatae vel oblongae, in vaginis superioribus plerisque plus minusve excurrentibus reflexisque, utrinque obscure scabrae; *setae orales* in vaginis inferioribus saepissime nullae vel auricularum margine exteriori 1-2, in superioribus 1-plurimae, 5-10 mm. longae, sinuosae, pallido- vel fusco-stramineae, rigidae, basi glabrae vel obscure scabrae, in sicco fragilissimae fugacesque; *ligula* in medio 1-2 mm. alta, utrinque vix coarctata, apice convexa vel arcuata, margine integro dense pallido-striata; *lamina*

erecta utrinsecus nervosa, in vaginis inferioribus subtriangulis, in superioribus ovato-lanceolata, apice subito acuminata subulataque, basi subcordata, extus glabra, intus inter nervos aciculis fuscis antrorse scabra vel substrigosa, marginibus modice involutis, basin versus ciliatis. *Rami* inermes patentes; *ramuli* usque ad 11-foliati, alioquin ut in *B. tuldoides* Munro. *Foliorum vaginae* dorso marginibusque glabrae; *auriculae* valde evolutae, olivaceae, falcatae, glabrae vel scabriusculae; *setae orales* pleraeque valide evolutae, tenuissimae, fragiles, pallidae, sinuosae, glabrae vel basi obscure hispidulae; *ligula* brevissima vix exserta; *petiolus* brevis crassus utrinque glaber vel supra hispidulus; *laminae* usque ad 20 cm. longae et usque ad 22 mm. latae, oblongo- vel lineari-lanceolatae, apice acutae vel longo-acuminatae, glabro-subulatae, infimis basi subcordatis, supremis basi attenuatis, supra glabrae vel secus marginem exteriorem scabrae, subtus sparse (interdum obscure) pilosulae, demum glabrescentes; *venulae transversae* non manifestae, "glandulis pellucidis" minutis tamen compluribus. *Inflorescentiae* pseudospiculae ad nodos ramorum ramulorumque nudorum in glomerulis dissitis congestae. *Pseudospiculae* usque 4.5–5 cm. longae lineares, vel teretes vel subteretes. *Rhachis* brevissima, glabra. *Bractee gemmiparae* vulgo 2, brevissimae, ovatae, obtusae, chartaceae, fragiles. *Spiculae* subcylindricae vel paullo compressae, 5–12-florae, mox discedentes. *Flosculae* omnes perfectae, superiores 2–3 semper, infima interdum, tabescentes. *Gluma vacua* vulgo 1, formae lemmateos sed brevior, vulgo 5–6 mm., raro 8.5 mm. longa, glabra. *Rhachillae segmenta* claviformia, glabra, pleraque $\frac{1}{4}$ – $\frac{1}{3}$ paleae aequantia. *Lemma* usque ad 10 mm. longum, naviculiforme, acutum, apiculatum, glabrum, chartaceum, plurinerve, secus nervos dilute violascente. *Palea* lemma aequans vel brevior, apice acuto comosula, carinis sursum tantum sparse subtiliterque ciliolata, alioquin glabra vel apicem versus inter carinas subtiliter hispidula. *Lodiculae* hyalinae, subaequales, ovato-lanceolatae, obtusae, marginibus ciliatae. *Antherae* 4–4.5 mm. longae, luteae. *Ovarium* generis, apice hispidulum. *Stylus* brevis, crassiusculus, hispidulus. *Stigmata* 3, plumosa. *Fructus* maturus non inventus.

This redescription of the species is based on *W. T. Tsang 30198*, collected July 22, 1940, near Lung Waan. "Semi-cult. for edible shoots; occasional near villages on dry clay soil; culms 30 Chi. ft. (11.24 m.) tall." Chinese name (Cantonese): *Taai Wong Chuk*, i.e., Large Yellow Bamboo.

On the basis of the culm sheaths in the type, this species was placed near *B. tuldoides* Munro. The flowering material now available confirms this relationship, as does the larger stature indicated for the plant. The spikelets in our species, however, are more slender and the florets in each spikelet are significantly more numerous and smaller. Our species is most readily distinguished from *B. tuldoides* on the basis of the auricles and other features of the culm sheath.

The case of the confusion of two species illustrated above serves to emphasize the importance of collectors' securing culm sheaths definitely and unmistakably associated on the same plant with flowers whenever possible, for the simple reason that without such association made in the field, taxonomic work based on flowering material alone can be of little use for field determinations, since the plants to be identified in the field usually do not afford flowers, but do present culm sheaths for at least a

part of each year. The culm sheaths are usually quite as distinctive as the flowers, and often much more strikingly so. This fact was recognized by Munro and other earlier botanists, to whom, however, very little material containing culm sheaths was available, and by Gamble, whose work on the bamboos of India is eminently useful for field determinations, chiefly because he paid special attention to the culm sheaths.

It is now necessary that the material under *W. T. Tsang 28988*, originally misidentified as *B. aurinuda* McClure, be given a new status.

***Bambusa Tsangii* sp. nov.**

Species primo cum *B. aurinuda* McClure, a me confusa, tamen inflorescentiae *B. aurinudae* verae nunc inventae, praeterea aperte distinctae esse probatae sunt. *Bambusa Tsangii* a *B. aurinuda* saltem pseudospiculis comparative lentius divisis, pseudospiculis flosculisque multo amplioribus, lemmatibus dimidio longioribus differe videtur.

Culmi erecti vel suberecti, circa 3 m. alti (teste *Tsang*); *internodia* teretia vel subteretia, glabra, anguste fistulosa; *nodi* glabri, cicatrice et supra cicatricem prominuli. *Culmorum vaginae* deciduae desideratae. *Rami* plures, inermes, glabrae, tenues (superiores tantum adsunt), inaequales, uno mediano ceteris multo longiore crassioreque. *Foliorum vaginae* glabrae; *auriculae* pleraeque validae, falcatae, glabrae, margine nudae vel processis tenuissimis glabris radiatis sparse instructae; *ligula* perbrevis, basi crassa, dorso hispidula, apice recta vel convexiuscula, margine integro plerumque glabra; *petiolus* perbrevis, utrinsecus glaber, supra saepe rugulosus; *laminae* usque ad 10.5 cm. longae et usque 1.4 cm. latae, lanceolatae vel oblongo-lanceolatae, apice acutae vel acuminatae et quasi aristatae, infimis basi cordato-superioribus cuneato-rotundatis, utrinsecus glabrae vel subtus interdum pilis mollibus sparse obsitae, marginibus cartilagineis inaequaliter spinulosae; *venulae transversae* non manifestae. *Inflorescentiae* pseudospiculae ad nodos ramorum ramulorumque vel nudorum vel basi foliiferorum, primo solitariae demum plus minusve aggregatae, ramis ramulisque sterilibus foliiferis interdum cum floriferis intermixtis. *Pseudospiculae* usque ad 5 cm. longae, fusiformes curvatae, mox dissolutae. *Rhachis* brevissima, glabra, tarde ramosa. *Bractee gemmiparae* vulgo 2, valde inaequales, superiore vulgo 5 mm. raro usque ad 9 mm. longa, glabrae, nervosae, apiculatae. *Spiculae* subteretes, paullo compressae, 7-8-florae. *Flosculae* omnes perfectae, superiores 1-2 semper, infima interdum, tabescentes. *Glumae vacuae* vulgo nullae. *Rhachillae segmenta* $\frac{1}{4}$ - $\frac{1}{3}$, rarissime paene $\frac{1}{2}$ paleae aequantia, claviforme vel cuneata, fistulosa, uno latere plana, prope apicem ciliolatum scabriuscula, alioquin glabra, infra lemmata tantum disarticulata. *Lemma* usque ad 15 mm. longum, tenuiter papyraceum, nervosum, glabrum, olivaceum, apice saepissime purpura dilute tincto, acutum, apiculatum. *Palea* lemmate brevior vel raro subaequalis, apice hebet acuta comosulaque, inter carinas 7-nervis, glabra, carinis ciliata, extra carinas obscure scabriuscula. *Lodiculae* subaequales hyalinae, utrinque glabrae vel interdum dorso molliter hirtellae, marginibus ciliatae. *Antherae* maturae omnes descitae, reliquis junioribus tantum apice obtusis emarginatis vel quasi bicornibus. *Ovarium* generis, apice hispidum. *Stylum* 1-2 mm. longum hispidum. *Stigmata* 3, plumosa. *Fructus* maturus non inventus.

TYPE: *W. T. Tsang 28988*, collected May 7, 1939, near Chan Uk Village, Ha Coi, at the foot of Taai Wong Mo Shan, Tonkin. "Wild; fairly common among scattered

shrubs on sandy soil; 3 m. tall; flowers (anthers!) light yellow." Chinese name (Cantonese): *Wong Chuk*, i.e., Yellow Bamboo.

This species was at first confused with *B. aurinuda*, and was made the basis of a description of the flowers of that species, and for that reason was designated as a hypotype of that species. However, now that the flowers of *B. aurinuda* have been found associated with culm sheaths of that species, they prove to be unmistakably distinct. *Bambusa Tsangii* differs from *B. aurinuda*, so far as the material available is concerned, in the longer and more slowly branching pseudospikelets, the larger and fewer-flowered spikelets, and the lemmas longer by a half.

Bambusa Tsangii is apparently closely allied to *B. tuldoides* Munro, from which, on the basis of the material available, it is weakly distinguished by its smaller stature, the less strongly congested inflorescences, the lemmas more prominently apiculate, the palea with keels much more prominently ciliate, and the subglabrous leaves. It is probable that the culm sheaths, when they are known, will reveal more conspicuous differences. The large, almost solitary pseudospikelets in *B. Tsangii* are reminiscent of those of *B. multiplex* (Lour.) Raeusch., but the much smaller individual florets, the prominently ciliate keels of the palea, and subglabrous leaves which are concolorous on the two surfaces readily distinguish it from Loureiro's species.

The species is named for W. T. Tsang (Tsang Wai-tak) whose energetic and discerning field work has brought to light many plants new to science.

Lingnania atra sp. nov.

Species characteribus nonnullis *L. Chungii* (McClure) McClure affinis sed saltem internodiis culmorum ligni crassi pulchre striatis, conformatione vestituque vaginorum culmorum, vaginis foliorum auriculas et setas orales carentibus, laminis foliorum subtus glabris aperte distincta.

Culmi erecti usque et ultra 11 m. alti (teste Tsang); *internodia* modice elongata, fistulosa, inania, cylindrica, praecipue infra nodos glauca, infimis supra nodos pilis sericeis adpressis crasse tectis, alioquin ab initio omnino glabra; *nodi* cicatrice glabro valde prominentes, supra cicatricem paullo inflati. *Culmorum vaginae* deciduae, ut in generis typo crassae induratae et faciliter fissiles, apice vel convexae vel arcuatae vel subrectae laxaeque, dorso glaucae, *basi retrorse atro-hirsutae, alioquin aciculis atris* (vel in superioribus pallidioribus) antrorse adpressis et basi bulbosis plus minusve dense obsitis; *auriculae* (in culmis saltem magnitudinis maturitatis) nullae vel fere ad lineam longissimam redactae, margine ciliolae deciduae instructae; *setae orales* sparsae, erectae, tenues, basi bulbosae hispidaeque, caducae mox fugaces; *ligula* vix 1 mm. alta, haud exserta, latitudine apicem latissimum vaginae aequans, margine processibus fragilissimis usque ad 15 mm. longis basi hispidulis sursum glabris tenuissimisque fimbriata; *lamina* erecta plus minusve persistens demum abscidens, firma, vel plana vel marginibus plus minusve involuta, lanceolata, apice attenuato-acuminata, basi constricta, utrinque nervosa, dorso glabra, ventre scabra. *Rami* numerosissimi, congesti, tenuissimi, longitudine valde inaequales, ima basi et sursum divisi, internodiis elongatis, glabris, nodis paullo inflatis, vaginellis nervosis, deorsum aciculis patentibus, deciduis, basi bulbosis, sparse

obsitis, demum papillosis deciduisque. *Foliorum vaginae* tenues, tenuiter nervosae, glabrae vel infimis interdum ut in vaginellis ramorum pubescentiae, dorso carinatae; *auriculae* setae oralesque nullae vel debilissimae; *ligula* brevissima haud exserta; *petiolus* utrinque glaber; *laminae* usque ad 38 cm. longae et usque ad 2.4 cm. latae, oblongo- vel lineari-lanceolatae, apice attenuato-acuminatae, aristatae, basi cuneato-rotundatae, utrinque glabrae vel interdum subtus deorsum prope costam pilis sparse instructae; *venulae transversae* subtus interdum obscure manifestae. *Inflorescentiae* desideratae.

TYPE: *W. T. Tsang 30546*, collected Sept. 29, 1940, near Kau Kaai Ts'uen, at the foot of Kau Nga Shan. "Wild; occasional on wet soil in forest near stream; culms 30 Chi. ft. (11.24 m.) tall, used by the natives to make paper." Chinese name (Cantonese): *Shan Taan Chuk*, i.e., Mountain Single (-node) Bamboo. A sample of the paper made from this bamboo was secured by the collector and a part of it will be distributed with each duplicate.

The specific name alludes to the very black hairs clothing the lower culm sheaths.

***Lingnania sesquiflora* sp. nov.**

Species habitu scandente, spiculis pallidis parviflorisque affinis *L. scandenti* McClure, sed spiculis semper sesquifloribus, palea carinis breviter ciliatis, foliorum vaginis cum auriculis et setis oralibus saepissime valde evolutis, ligula margine longe fimbriata, laminis omnibus proportione latioribus et basi rotundatis aperte distincta.

Culmi scandentes usque ad 6 m. alti (teste Tsang); *internodia* (superiora tantum adsunt) fistulosa, inania, cylindrica, glabra, pallida; *nodi* cicatrice collari prominente glabro 2-3 mm. lato instructi, supra cicatricem paullo inflati et interdum pro parte pilis sericeis adpressis tecti. *Culmorum vaginae* deciduae (desideratae). *Rami* plures, fasciculati, glabri, tenues, praecipue ima basi divisi, interdum supra semel vel raro iterum divisi, inaequales, uno mediano ceteris multo longiore crassioreque, floriferis et foliiferis vel distinctis et remotis vel intermixtis vel ramis simul flores simul folios gerentibus. *Foliorum vaginae* glabrae, interdum primo tenuiter ciliatae, postea porriginosa, nunc congestae nunc longe exsertae; *auriculae* nullae vel valde evolutae semirotundatae, fuscae, glabrae vel obscure scabrae, saepe reflexae; *setae orales* nullae vel (auriculis praesentibus) valde evolutae, basi bulbosae, in margine tantum auricularum arctae, usque ad 10 mm. longae, fuscae et obscure scabrae, supra tenuissimae, radiatae; *ligula* circa 1.5 mm. longa, dorso glabra, apice vulgo convexa, margine ciliis deciduis vel fugacibus utrinque 2-3 mm. longis, medio brevioribus fimbriata; *petiolus* crassus, basi bulboso quasi pulvinatus, et saepissime rugosus, utrinque glaber vel supra interdum hispidulus; *laminae* usque ad 25 cm. longae et 5.4 cm. latae, oblongo-oblancheolatae vel paene oblancheolatae vel (basalibus brevibus) lanceolatae, apice attenuato acuminatae subulataeque, basi rotundatae, subtus secus unum latus tantum costae sparse pilosae, alioquin utrinsecus glabrae; *venulae transversae* non manifestae vel interdum obscurissimae inventae. *Inflorescentiae* pseudospiculae ad nodos ramorum ramulorumque glomerulis dissitis congestae. *Pseudospiculae* vulgo usque ad 13 mm., interdum paene 18 mm. longae, primo subfusiformes. *Bractee gemmiparae* 2-3, ovatae obtusae apiculatae glabrae, infima circa 2 mm. longa, superioribus gradatim longioribus. *Spiculae* sesquiflorae, plus

minusve compressae, tenuiter chartaceae, pallide vel fusce stramineae, fere omnino glabrae, mox discedentes. *Glumae vacuae* 3–4, ovatae, obtusae, apiculatae, ventricosae, extus glabrae nitidaeque, infima 3–4 mm. longa, superioribus gradatim longioribus usque ad 7.5 mm. longis. *Lemma* fertile 9–10 mm. longum, ovatum, ventricosum, acutum, apiculatum, obscure plurinerve. *Palea* lemma aequans vel paullo longior, apice obtusa, dorso profunde sulcata, carinis subtiliter ciliata, prope margines apicemque asperella, rudimento apice acuminatissimo vulgo paleam paullo superante. *Rhachillae segmenta* omnia (supremo attenuato excepto) brevissima glabra, infra et inter glumas et infra lemma fertile tantum disarticulantia. *Lodiculae* crassae, dorso hispidulae, margine rigide ciliatae, obovatae, apice obtusae vel interdum subacutae, deorsum angustatae, subsimiles vel interdum posteriore multo angustiore et apice acuta. *Antherae* circa 5 mm. longae, lineares, muticae. *Ovarium* subtriquetrum elongato-obovatum, deorsum glabrum, apice tantum pericarpio crasso, duro, hispido, tectum. *Stigmata* 3, pilosa. *Fructus* maturus caryopsis glabra, 8 mm. longa, anguste ovoidea, basi rugosa quasi retorrída, dorso sulco profundo notata, sursum basi hispida styli coronata; *pericarpium* deorsum tenue, apice crassum durum.

TYPE: *W. T. Tsang* 30102, collected June 30, 1940, at Lung Waan. "Wild; occasional on dry clay soil, by roadside in forest; culms scandent, 16 Chi. ft. (6 m.) long." Chinese name (Cantonese): *T'ang Chuk*, i.e., Climbing Bamboo.

***Dinochloa alata* sp. nov.**

Species auriculis culmorum vaginarum subnullis *D. orenudae* McClure affinis, sed culmorum vaginis latere exteriori tenuiter chartaceis, laxis hiantisque, deorsum in alam amplam rotundatam excurrentibus, ligula margine longissime fimbriata aperte distincta.

Culmi scandentes usque et ultra 11 m. alti (teste Tsang); *internodia* fere solida, cylindrica, elongata, glabra, prope nodos inflata, infra nodos glauca, superioribus asperellis; *nodi* glabri, cicatrice collari gibboso prominente rugoso, glabro, 3–5 mm. lato instructi. *Culmorum vaginae* deciduae, latere exteriori nervosae, tenuiter chartaceae, laxae hiantaeque, et deorsum in alam amplam rotundatam excurrentes, alioquin arctae crassae induratae et nervos prominentes carentes, deorsum pilis mollibus adpressis pallide brunneatis leviter obsitae sensim glabrescentes, alioquin ab initio glabrae, supra versus apicem latum vel subtruncatum vel concavum leniter attenuatae; *auriculae* subnullae vel ad labiam angustissimam glabram redactae; *setae orales* nullae; *ligula* valida, dorso scabra, apice variabilis, margine processibus crassis rigidis glabris, in vagina quinta 15 mm., in superioribus usque ad 22 mm. longis, fimbriata; *lamina* persistens, valde reflexa, plana, subtenuis, anguste lanceolata, in vagina quinta quam vaginae ipsius dimidiam longior, utrinsecus nervosa glabraque, margine subtiliter spinulosa. *Rami* ut in genere, internodiis glabris, nodis inflatis; vaginellis vel hispidulis vel glabris, demum deciduis. *Foliorum vaginae* glabrae; *auriculae* in vaginis superioribus nullae vel debilissimae, inferioribus plerisque valde evolutae, crassae reflexae, utrinque glabrae; *setae orales* radiatae usque ad 10 mm. longae tenues scabrae persistentes; *ligula* perbrevis, dorso scabriuscula, apice subrecta, margine inaequaliter denticulata; *petiolus* 1–2 mm. longus, utrinque glaber vel subglaber; *laminae* usque ad 20 cm. longae et usque ad 2.8 cm. latae, vel ovato- vel oblongo- vel lineari-lanceolatae, basi rotundatae, utrinque glabrae vel raro deorsum subtus secus tantum costam

pilis debilibus sparse obsitae; *venulae transversae* vulgo haud manifestae, raro obscurae, remotae, debiles. *Inflorescentiae* desideratae.

TYPE: *W. T. Tsang 30410*, collected Aug. 25, 1940, near Laan Aang Ts'uen. "Wild; occasional on dry clay soil at edge of a forested ravine; culms 30 Chi. ft. (11.24 m.) tall." Chinese name (Cantonese): *T'ang Chuk*, i.e., Climbing Bamboo.

Lingnania remotiflora (O. Ktze.) comb. nov.

Arundarbor remotiflora O. Ktze. Rev. Gen. Pl. 760. 1891.

Bambusa remotiflora O. Ktze. l.c. in syn.

Lingnania parviflora McClure, Lingnan Univ. Sci. Bull. **9**: 37. 1940.

ANNAM: Turong [Tourane], *Otto Kuntze s.n.*, Feb. 1875. Cultivated; 30-50 ft.

Through the courtesy of the Curator of the Herbarium of the New York Botanical Garden, where Kuntze's herbarium is now deposited, I was able to examine the type (in two sheets) of Kuntze's species. Although the specimens are fragmentary, there is sufficient material to justify the assertion that the inflorescences show no character by which Kuntze's species can be distinguished from *Lingnania parviflora* McClure, the type of which was collected on the island of Hainan. Dr. A. Camus, who examined Kuntze's type at the request of Dr. E. D. Merrill, reduced this species to *Bambusa tuldoides* Munro; see Merrill, *Brittonia* **2**: 191. 1936.

In addition to the species here described as new, Tsang's 1940 collection includes three species described earlier from southern China and here reported for the first time from Indo-China:

Bambusa gibba McClure, Lingnan Univ. Sci. Bull. no. **9**: 10. 1940.

Lung Waan; "wild; occasional on moist sandy soil near stream in forest. Culms 14 Chi. ft. (5.25 m.) tall." Chinese name (Cantonese): *Shui Wong Chuk*, i.e., Water Yellow Bamboo, *W. T. Tsang 30164*, collected July 19, 1940.

Lingnania cerosissima (McClure) McClure, Lingnan Univ. Sci. Bull. no. **9**: 35. 1940.

Bambusa cerosissima McClure, Lingnan Sci. Jour. **15**(4): 637. 1936.

Lung Waan; "Cult.; occasional near villages in dry clay soil; culms 30 Chi. ft. (11.24 m.) tall." Chinese name (Cantonese): *Taan Chuk*, i.e., Single (-node) Bamboo. *W. T. Tsang 30153*, collected July 5, 1940.

Schizostachyum pseudolima McClure, Lingnan Sci. Jour. **19**(4): 537, pl. 39, 40. 1940.

Lung Waan; Laan Aang Ts'uen; Kau Kaai Ts'uen at foot of Kau Nga Shan; "Wild; occasional in dry clay or moist sandy soil; in forests; culms 10-16 Chi. ft. (3.75-6 m.) tall. Chinese names (Cantonese): *Pok Chuk*; *Pok Chuk Tsai*, i.e., Thin (-walled) Bamboo. *W. T. Tsang 30119*, collected July 2, 1940; *W. T. Tsang 30322*, collected Aug. 10, 1940; *W. T. Tsang 30536*, collected Sept. 28, 1940.

There may also be reported the following, from the Lingnan University Herbarium:

Schizostachyum hainanense Merr. ex McClure, Lingnan Sci. Jour. **14**(4): 591. pl. 36 & 39, fig. 1. 1935.

Tonkin, without precise locality or other field notes. LU 19889 (*H. Fung*) collected Jan. 21, 1932.

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